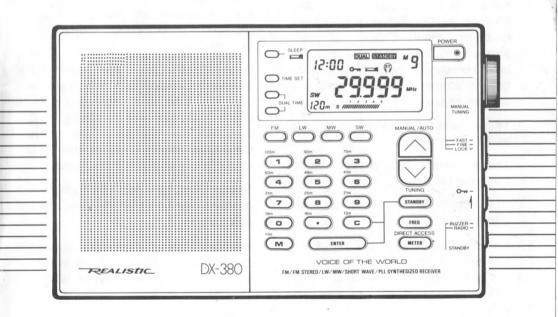
OWNER'S MANUAL

NUAL DX-380 DIGITAL-TUNING ALL-BAND AM/FM/SW/LW RADIO

Please read before using this equipment



Cat. No. 20-213 A

REALISTIC

FEATURES

Your Realistic DX-380 Receiver brings the voices of the world to you. You can take this lightweight, compact receiver almost anywhere you go and choose from a wide variety of broadcasts on the FM, longwave (LW), shortwave (SW), and medium wave (MW) bands. (In the United States, we commonly call the MW band the AM band.)

In the FM and MW bands, you can tune to local broadcasts. The 13 international SW bands bring you the news and other programs from such sources as the British Broadcasting Company, Radio Cairo, and Radio Moscow. In the LW band, you can hear hurricane reports, ship-to-shore calls, and other marine and aeronautical services.

Your receiver also serves as a multifeatured clock radio.

The receiver's special features include the following:

PLL Synthesized Receiver — ensures accurate tuning.

Large, Fast-Response Display — shows the time, band and frequency, signal strength, and numerous other indicators in large, easy-to-read characters.

Three Power Options — let you power the receiver with internal batteries, standard household AC power (using an optional AC adapter), or DC vehicle battery power (using an optional DC adapter).

Battery Power Indicator — lets you know when to replace the batteries if you power the receiver with internal batteries.

Back-Up Battery Power — keeps the clock running and protects the stations stored in memory if the receiver's primary power source is interrupted.

Dual Time — lets you view the receiver's primary clock, which shows your local time, or a secondary clock, which you can set to show UTC (universal time coordinate; also called Greenwich mean time) or the local time of a city in another time zone.

Search Tuning — lets you search up or down the band for the next available station.

Memory Tuning — lets you store up to 45 frequencies in memory so that you can easily select your favorite stations.

Direct-Access Tuning — lets you directly tune to the desired frequency by entering the frequency on the keypad.

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Rotary Tuning Adjustment — lets you select a higher tuning increment for faster tuning, select a lower tuning increment for fine tuning, or lock the rotary tuning dial to prevent you from accidentally changing the frequency.

Control Lock — prevents you from accidentally turning the receiver on or off, changing the band or frequency, or changing other front-panel controls.

Alarm/Standby Feature — lets you set the buzzer to sound or the receiver to turn on at a specified time.

Sleep Timer — lets you set the receiver to turn off after 60 minutes so that you can fall asleep as you listen to the receiver.

AM DX/Local Control — lets you reduce distortion of SW, MW, and LW broadcasts.

AM Narrow/Wide Control — lets you reduce interference from other stations when you listen to SW, MW, and LW broadcasts.

MW Step Setting — lets you listen to MW broadcasts while visiting a foreign country.

Confirmation Tone — sounds to confirm various entries.

Headphone Jack — lets you connect optional stereo headphones so that you can listen privately and hear FM broadcasts in stereo.

Folding Stand — lets you securely position the receiver at an angle.

Memo Pad — lets you record helpful information such as the memory location numbers of your favorite stations.

For your permanent records, we recommend you record the serial number of your receiver in the space provided. The serial number is located inside the RADIO BATTERY compartment.

Serial	Number	

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POWER SOURCES

You can power the receiver with internal batteries, standard AC power, or your vehicle's battery.

Regardless of the primary power source you choose, we recommend you install the back-up batteries. See "Back-Up Power."

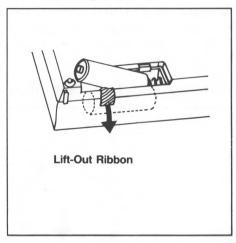
BACK-UP POWER

Back-up batteries keep the receiver's clock running and preserve the stations stored in memory if the receiver's primary power source is interrupted.

The receiver uses two AA batteries for back-up power. For best performance, we recommend alkaline batteries, such as Radio Shack Cat. No. 23-552.

Note: You cannot operate the receiver using only the back-up batteries. If you press **POWER** when the back-up batteries are the only available power source, **E** flashes on the display.

Installing the Back-Up Batteries



Follow these steps to install the backup batteries.

- Remove the cover from the BACK-UP BATTERY compartment by pushing the cover in the direction of the arrow.
- Install two AA batteries, as indicated by the illustration near the battery compartment. Note the polarity markings (+ and -). For easy removal, place the batteries on top of the lift-out ribbon.
- 3. Replace the compartment cover.

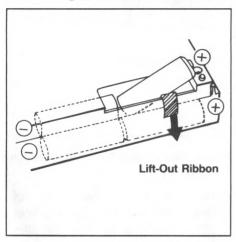
Checking the Back-Up Batteries

To check the back-up batteries' power level, disconnect the receiver from all other power sources. Then, check the display. If it is dim, replace the back-up batteries.

INTERNAL BATTERY POWER

You can power the receiver with four AA batteries. For best performance, we recommend alkaline batteries, such as Radio Shack Cat. No. 23-552.

Installing the Radio Batteries

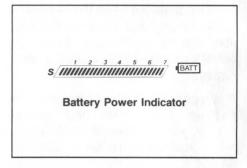


Follow these steps to install the radio batteries.

- Remove the cover from the RADIO BATTERY compartment by pushing the cover in the direction of the arrow.
- Install four AA batteries as indicated by the illustration near the battery compartment. Note the polarity markings (+ and -). For easy removal, place the batteries on top of the lift-out ribbon.
- 3. Replace the compartment cover.

Note: If you do not plan to use the receiver for several days, or if you are using another power source, we recommend you remove the radio batteries. This protects the receiver from possible battery leakage.

Checking the Radio Batteries



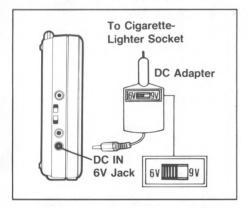
If you power the receiver with the radio batteries, the battery power indicator appears on the display for several seconds after you turn off the receiver.

Fresh batteries show a power level of 7. When the indicator shows a power level of 2, replace the radio batteries.

Note: If you press **POWER** when the radio batteries are *dead*, **E** flashes on the display.

Caution: The recommended AC and DC adapters supply 6 volts with the center tip set to negative, they deliver 300 milliamps, and their plugs properly fit the receiver's DC IN 6V jack. Using an adapter that does not meet these specifications could damage the receiver or the adapter.

VEHICLE DC BATTERY POWER



With an optional DC adapter, such as Cat. No. 14-844, you can power the receiver with your vehicle's battery.

Cautions:

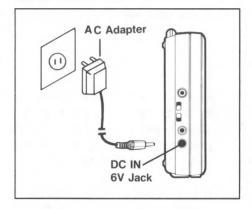
- Your vehicle must have a 12-volt DC, negative-ground electrical system.
- Always connect the adapter to the receiver before connecting it to the cigarette-lighter socket.
- Always disconnect the adapter from the cigarette-lighter socket before disconnecting it from the receiver.

Follow these steps to use DC power.

 Set the adapter's 6V/9V switch to 6V.

- 2. Insert the adapter's barrel plug into the receiver's **DC IN 6V** jack.
- Insert the adapter's large plug into the vehicle's cigarette-lighter socket. This disconnects the radio batteries.

AC POWER



With an optional AC adapter, such as Cat. No. 273-1650, you can power the receiver with standard AC power.

- 1. Set the adapter's voltage switch to **6V**.
- Line up TIP- on the green barrel plug with -NEG on the adapter's socket, and insert the plug.
- Insert the barrel plug's other end into the receiver's DC IN 6V jack.
- 4. Plug the adapter into a standard AC outlet. This disconnects the radio batteries.

PREPARATION

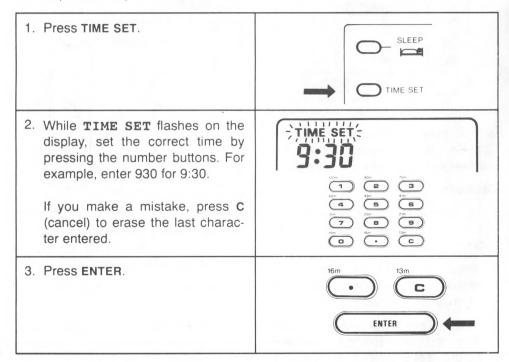
SETTING LOCAL TIME

The receiver has two clocks. Set the primary clock, which normally appears on the display, for your local time. Then, set the secondary clock for UTC (universal time coordinate; also called Greenwich mean time) or the local time of a city in another time zone.

Both clocks display the time in military format (0:00-23:59).

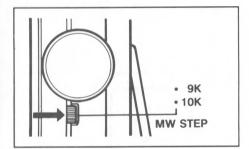
See "Using the Dual Time Feature" under "Clock Radio Operation" for instructions on setting the secondary clock.

Follow these steps to set the primary clock for local time.



Note: If you do not press **ENTER** within about 15 seconds, **TIME SET** stops flashing and you must begin again at Step 1.

SETTING THE MW TUNING INCREMENT



In the United States, the Federal Communications Commission (FCC) assigns frequencies for stations in the MW band in 10-kilohertz increments. (In the United States, we commonly call this the AM band.) In Europe and some other parts of the world, MW frequencies are assigned in 9-kilohertz increments.

Set **MW STEP** for the part of the world you are in.

MAKING A SW, MW, LW ANTENNA

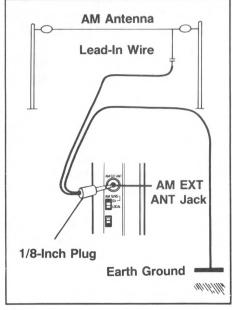
The receiver's telescoping antenna and internal ferrite antenna give adequate reception for most situations.

However, you can improve SW, MW, and LW reception by connecting a shortwave antenna, such as Cat. No. 278-758. This requires a two-conductor ½-inch plug, such as Cat. No. 274-288.

Note: Connecting this antenna does not affect FM reception.

Follow these steps to connect the receiver to the antenna:

- Connect a lead-in wire to the antenna.
- 2. Unscrew the cover from the 1/8-inch plug.
- Thread the lead-in wire through the plug's cover. Then, connect the wire to the terminal that leads to the plug's tip.
- 4. Thread a ground wire through the plug's cover, and connect it to the plug's other terminal.
- Connect the ground wire to an earth ground, such as a metal cold water pipe.
- 6. Replace the plug's cover.
- Insert the plug into the receiver's AM EXT ANT jack.



RECEIVER OPERATION

BASIC OPERATION

Warning: To prevent possible ear injury and hearing loss, set VOL to 0 before you turn on the receiver. After you turn on the receiver, adjust VOL for a comfortable listening level.

Follow these steps to listen to the receiver.

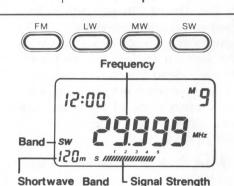
 Press POWER to turn on the receiver.

POWER

Press FM, LW, MW, or SW to select the band.

Note: Press MW for AM.

The display shows the band, frequency, and signal strength. (A reading of 7 shows the strongest signal.) If you select SW, the display shows the shortwave band.

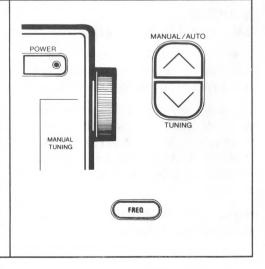


3. Tune to the desired frequency.

To manually tune to a frequency, turn ROTARY TUNING or press \wedge or \vee .

To tune directly to a station, press **FREQ**. The frequency display disappears. Press the number buttons to enter the frequency. Then, press **ENTER**.

See "Tuning" for details and for information about search and memory tuning.



4. Adjust the antenna as follows. FM and SW: Fully extend and rotate the telescopic antenna. LW and MW (AM): The antenna is internal. Rotate the receiver for best reception. 5. Adjust **VOL** to the desired volume. 6. Set TONE to emphasize high or low sounds. · HIGH · LOW TONE 7. Press POWER to turn off the receiver.

HEARING COMFORT AND YOUR HEALTH

Do not listen to your receiver at extremely high volume levels, especially when listening through headphones. Extended high-volume listening can cause permanent hearing loss.

TUNING

Use one of the following tuning methods to select the frequency.

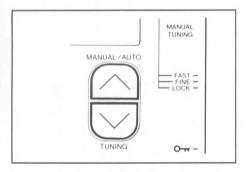
Direct-Access Tuning

You can tune directly to a specific frequency by doing the following.

Turn on the receiver and select the band.	FM LW MW SW
Press FREQ. The frequency display disappears.	FREQ DIRECT ACCESS METER
Press the numbers to enter the frequency.	100m 100m 75m 3 60m 40m 40m 40m 5 60m 40m 5 60m 70m 70m 70m 70m 70m 70m 70m 70m 70m 7
4. Press ENTER.	19m 16m 13m 13m 11m ENTER

Note: If you do not press **ENTER** within about 15 seconds, the previous frequency returns to the display and you must begin again at Step 2.

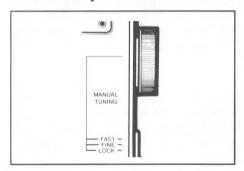
Manual Tuning with Arrow Keys



You can select a higher or lower frequency by pressing \land or \lor . The frequency changes in the following increments.

Band	Tuning Increment
FM	0.1 MHz
LW	9 kHz
MW (AM)	9 or 10 kHz (See "Setting the MW Tuning Increment.")
SW	.005 MHz

Manual Tuning with Rotary Dial



You can select a higher or lower frequency by turning ROTARY TUNING.

If you set FAST/FINE/LOCK to FAST, the rotary tuning increments are the same as when you use the Λ or V keys. If you set FAST/FINE/LOCK to FINE, the tuning increments are smaller so that you can fine tune the frequency.

	Tuning Increments				
	FM LW MW		MW	SW	
FAST	0.1	9	9/10	.005	
	MHz	kHz	kHz	MHz	
FINE	0.05	1	1	.001	
	MHz	kHz	kHz	MHz	

You can also lock the ROTARY TUNING dial to keep you from changing the frequency if you accidentally touch the dial. To lock the ROTARY TUNING dial, set FAST/FINE/LOCK to LOCK.

Note: This locks only the **ROTARY TUNING** dial. For information about locking the front-panel controls, see "Locking the Controls."

Search Tuning

You can easily search for available stations within a band as follows.

1.	Turn on the receiver and select the band.	POWER
		FM LW MW SW
2.	To search for a frequency in a shortwave band, press METER. Then, press the correct button on the numeric keypad to select the shortwave band.	1 2 3
3.	Press and hold down A or V for about 2 seconds to search up or down the selected band. The receiver tunes to the next station in the band. To stop searching before the receiver stops at a frequency, press A or V.	MANUAL/AUTO TUNING

Notes:

- The receiver searches only for frequencies with strong signals. To search for stations with weaker signals, use one of the manual tuning methods.
- The SW band consists of 13 smaller bands. During search tuning in the SW band, the receiver searches only within the selected band. For a list of the shortwave bands, see "International Radio Frequencies" under "Listening Hints."

Memory Tuning

For easy selection, you can store the frequencies of your favorite stations in memory. You can store up to 18 SW frequencies and up to 9 frequencies in each of the other bands.

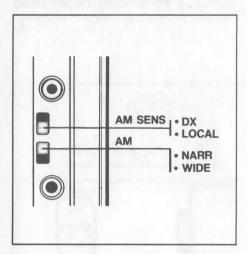
Storing a Frequency: Follow these steps to store a frequency in memory.

1. Turn on the receiver and select the band. 2. Use direct-access or manual tuning to tune to the frequency you want to store. 3. Press M. ENTER 4. While M flashes, press a number button(s) to select the memory 12:00 location. You later press this button(s) to select the stored station. For SW, select 1-9 or 01-09. For other bands, select 1-9. M stops flashing and the display shows the memory location.

Note: If you do not press a number within about 15 seconds, **M** stops flashing and you must begin again at Step 3.

Selecting a Stored Frequency: To select a stored station, turn on the receiver and select the band. Then, press the memory location number(s).

USING SPECIAL TUNING CONTROLS

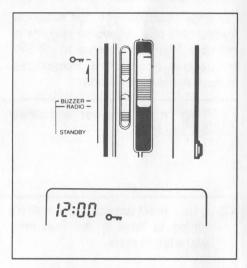


If you are listening to a strong SW, MW, or LW station, and the sound is distorted, set AM SENS to LOCAL. For normal or weak stations, set AM SENS to DX.

If you are receiving interference from another SW, MW, or LW station, set AM NARR/WIDE to NARR. Otherwise, set it to WIDE.

Note: These controls do not affect FM reception.

LOCKING THE CONTROLS



The lock feature helps prevent you from accidentally turning the receiver on or off, changing the band or frequency, or changing other front-panel controls.

Set the lock switch to •• to lock the controls. Set the switch to the other position to unlock the controls.

Notes:

- This locks the ROTARY TUNING dial and the front-panel buttons. You can still adjust VOL, TONE, and the other side-panel controls.
- To lock only the ROTARY TUNING dial, see "Manual Tuning with Rotary Dial" under "Tuning."

USING STEREO HEADPHONES



For private listening and for stereo sound during FM stereo broadcasts, connect optional stereo headphones with a ½-inch plug. Your local Radio Shack store offers a wide selection of stereo headphones.

Insert the headphones' plug into the receiver's \bigcap jack. This disconnects the receiver's internal speaker.

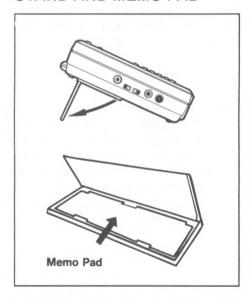
Warnings:

- To prevent possible hearing loss, set VOL to 0 before you put on the headphones. After you put on the headphones, adjust VOL to a comfortable listening level.
- Do not listen to your receiver at extremely high volume levels, especially when listening through headphones. Extended high-volume listening can cause permanent hearing loss.

When you connect stereo headphones and tune to a stereo broadcast, **ST** appears on the display. For best reception, fine tune the receiver until **ST** remains steady.

To improve reception of a weak FM stereo broadcast, set FM STEREO/MONO to MONO. The signal becomes mono (monaural), and ST disappears from the display. To return to normal FM reception, set FM STEREO/MONO to STEREO.

USING THE FOLDING STAND AND MEMO PAD



You can position the receiver more securely and possibly improve the sound by resting the receiver on its stand. Lift the latch on the back of the receiver to open the stand.

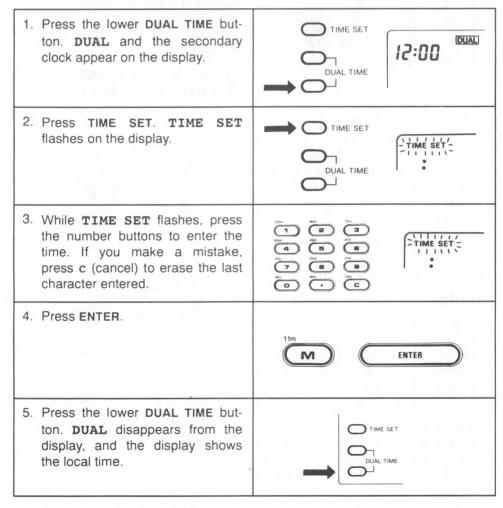
You can use the memo pad under the receiver's stand for helpful information, such as the memory location numbers of your favorite stations.

USING THE DUAL TIME FEATURE

In addition to the local-time clock, which normally appears on the display, you can set and view a secondary clock for UTC (universal time coordinate; also called Greenwich mean time) or for the local time of a city in another time zone.

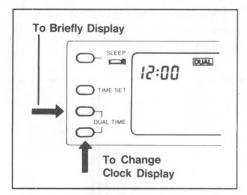
Setting the Secondary Clock

Follow these steps to set the secondary clock.



Note: If you do not press **ENTER** within about 15 seconds, **TIME SET** stops flashing and you must begin again at Step 2.

Viewing the Secondary Clock



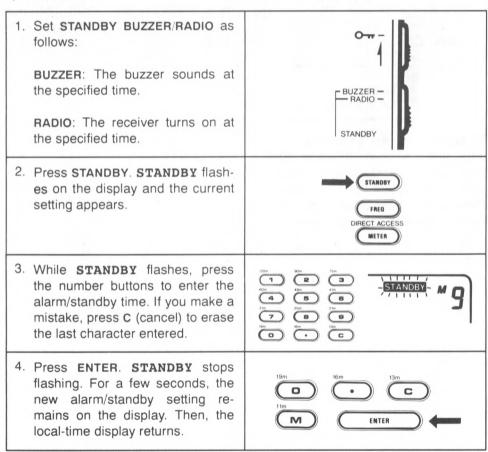
To briefly view the secondary clock, press and hold down the upper DUAL TIME button. DUAL and the secondary clock appear on the display. Release the upper DUAL TIME button to return the display to local time.

To view the secondary clock for a longer period of time, press the lower DUAL TIME button. DUAL and the secondary clock appear on the display. Press the lower DUAL TIME button again to return the display to local time.

USING THE ALARM/STANDBY FEATURE

You can set an alarm so that a buzzer sounds at a specified time. Or, you can set the receiver to turn on at a specified time.

Follow these steps to set the time you want the buzzer to sound or the receiver to turn on.



Note: If you do not press **ENTER** within about 15 seconds, **STANDBY** stops flashing and you must begin again at Step 2.

At the specified time, the buzzer sounds or the receiver turns on.

Note: After several seconds, the buzzer's volume increases. After a few more seconds, the volume increases again.

After 60 minutes, the buzzer stops or the receiver turns off. During this 60-minute period, flashes on the display.

To turn off the buzzer or the receiver sooner, press **POWER**. The flashing disappears.

STANDBY remains on the display to show that the alarm/standby feature is still selected. The buzzer will sound or the receiver will turn on again at the same time the next day.

To cancel the alarm/standby feature, press **STANDBY**. **STANDBY** flashes on the display. Press **C** (cancel). **STANDBY** disappears from the display.

USING THE SLEEP TIMER

The sleep timer sets the receiver to turn off after 60 minutes so that you can fall asleep as you listen to the receiver.

Follow these steps to set the sleep timer.

If the receiver is on, press POWER to turn off the receiver.	POWER
2. Press SLEEP. The receiver turns on, and appears on the display.	SLEEP 12:00 OUAL
3. Select the band and frequency. After 60 minutes, the receiver turns off. To turn off the receiver sooner, press POWER.	

LISTENING HINTS

Listening to shortwave radio can be very exciting. Newscasts from a country where important events are taking place give you a sense of immediacy that local newscasts seldom deliver.

Although shortwave listening requires no special knowledge, you might enjoy it more if you read some of the numerous books available on this subject. There are also several periodicals that give listening hints and seasonal program schedules.

The following information might also help you organize your listening efforts.

SW BAND ALLOCATION

Certain portions of the radio spectrum are set aside for specific purposes.

Ham Radio Frequencies

Ham radio operators often broadcast emergency information when other means of communication break down. Ham operators can transmit in continuous wave or single sideband. This receiver cannot receive single sideband signals. However, if you understand Morse code, you can listen to ham transmissions in the following continuous wave frequency ranges.

3,500–3,800 kHz 7,000–7,150 kHz 14,000–14,200 kHz 21,000–21,250 kHz 28,000–28,500 kHz

International Radio Frequencies

International commercial broadcasts are found in the following bands. Programming (often in English) usually contains news, commentaries, music, and special features reflecting the culture of the broadcasting country. You might find it easiest to hear these broadcasts during 6:00 p.m. and midnight (your time).

Note: European stations often list a frequency by giving its wavelength. For example, the 19-meter band refers to the range of frequencies whose waves are about 19 meters long.

Band	Frequency Range
120 meters *	2.300-2.495 MHz
90 meters *	3.200-3.400 MHz
75 meters *	3.900-4.000 MHz
60 meters *	4.750-5.060 MHz
49 meters	5.950-6.200 MHz
41 meters **	7.100-7.300 MHz
31 meters	9.500-9.900 MHz
25 meters	11.650-12.050 MHz
21 meters	13.600-13.800 MHz
19 meters	15.100-15.600 MHz
16 meters	17.550-17.900 MHz
13 meters	21.450-21.850 MHz
11 meters	25.670-26.100 MHz

- * These bands are reserved for stations in tropical areas.
- ** Ham operators and international stations share 7,100–7,300 kHz. Interference is heavy in this range.

Time Standard Frequencies

The following frequencies announce the exact time of day at specified intervals.

Station	Frequency	
WWV in Fort Collins,		
Colorado	2,500 kHz	
	5,000 kHz	
	10,000 kHz	
	15,000 kHz	
	20,000 kHz	

in Canada

CHU

VNG in Australia

12,000 kHz

7,335 kHz

FREQUENCY CONVERSION

The tuning location of a station can be expressed in frequency (kHz or MHz) or in wavelength (meters). The following information can help you make the necessary conversions.

To convert from MHz to kHz, multiply by 1,000. For example:

 $9.62 \, \text{MHz} \times 1000 = 9620 \, \text{kHz}$

To convert from kHz to MHz, divide by 1,000. For example:

 $\frac{2780 \text{ kHz}}{1000} = 2.780 \text{ MHz}$

To convert from MHz to meters, divide 300 by the number of MHz. For example:

 $\frac{300}{7.1 \text{ MHz}} = 42.25 \text{ meters}$

TIME ZONE MAP

Most shortwave stations announce broadcast times in UTC (universal time coordinate). The time zone map on the back of the receiver shows the difference between UTC and each time zone.

To determine your local time, add or subtract the specified number from UTC. During daylight savings time, subtract 1 more hour.

TROUBLESHOOTING

Your receiver should give you years of trouble-free service if you follow the care instructions given in this manual. If you do have problems, the chart below might help you solve them.

If you still have problems after following the suggestions below, take the receiver to your local Radio Shack store where our personnel will assist you.

Problem	Cause/Remedy
Display dim, incorrect, or does not appear	Radio and back-up batteries are weak or dead.
	Temperature or humidity is too high.
E flashes on the display	Receiver is not connected to primary power source.
	You are using radio batteries as primary power source and the batteries are weak or dead.
No sound	Radio batteries are weak.
	VOL is set too low.
	Headphones are plugged into receiver. (This disconnects the receiver's internal speaker.)
	AC or DC adapter is not firmly plugged in.
	AC or DC adapter is plugged into receiver but not plugged into power source. (Plug- ging an adapter into the receiver automat- ically disconnects the radio batteries.)

Problem	Cause/Remedy
Weak or intermittent sound	Radio batteries are weak.Antenna needs adjusting.
	Metal is blocking the signal. Move the receiver near a window when operating it inside a vehicle or metal frame building.
	Frequency needs fine tuning. See "Tuning."
Search stops where there is no clear signal	This is caused by birdies—internally generated signals mixed with external signals. Using an outdoor antenna might reduce these signals. The following frequencies are prone to birdies:
	450 kHz 3,844 kHz 9,000 kHz 10,250 kHz 18,000 kHz 20,490 kHz 21,835 kHz 21,868 kHz
Frequency does not change when you turn ROTARY TUNING	FAST/FINE/LOCK is set to LOCK.
ROTARY TUNING and front- panel controls do not respond	If O— appears on the display, the lock switch is set to O—.

MAINTENANCE

CARE

Your Realistic DX-380 Receiver is an example of superior design and craftsmanship. The following suggestions will help you care for your receiver so that you can enjoy it for years.



Use only fresh batteries of the recommended size and type. Never leave dead or weak batteries in the receiver. They might leak chemicals that

can damage the receiver. If you are not going to use the receiver for several days, remove the batteries.



Keep the receiver dry. If it does get wet, wipe it dry immediately. Liquids can contain minerals that can corrode the electronic circuits.



Use and store the receiver only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.



Keep the receiver away from dust and dirt, which can cause premature wear of parts.



Handle the receiver gently and carefully. Dropping it can damage circuit boards and can cause the receiver to work improperly.



Wipe the receiver with a dampened cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean your receiver.

Modifying or tampering with your receiver's internal components can cause a malfunction and might invalidate the receiver's warranty and void your FCC authorization to operate the receiver. If your receiver is not performing as it should, take it to your local Radio Shack store where our personnel will assist you.

THE FCC WANTS YOU TO KNOW

Your receiver might cause interference on other radio/TV devices even when it is operating properly. To determine whether your receiver is causing the interference, turn off your receiver. If the interference goes away, your receiver is causing the interference.

Try to eliminate the interference by:

- Moving your receiver away from the other device
- Connecting your receiver to an outlet that is on a different electrical circuit from the other device
- Contacting your local Radio Shack store for help

If you cannot eliminate the interference, the FCC requires that you stop using your receiver.

SPECIFICATIONS

Semiconductors:	
LSI	
FET	
IC	
Diodes	
Transistors	
Circuit:	
FM	Heterodyne
LW/MW/SW	Double-Conversion Heterodyne
Frequency Range:	
FM	87.5–108 MHz
LW	
MW	
SW	1.711–29.999 MHz
SW Bands	2.300–2.495 MHz (120 meters)
	3.200-3.400 MHz (90 meters)
	3.900-4.000 MHz (75 meters)
	4.750-5.060 MHz (60 meters)
	5.950-6.200 MHz (49 meters)
	7.100–7.300 MHz (41 meters)
	9.500–9.900 MHz (31 meters)
	11.650–12.050 MHz (25 meters)
	13.600–13.800 MHz (21 meters) 15.100–15.600 MHz (19 meters)
	17.550–17.900 MHz (16 meters)
	21.450–21.850 MHz (13 meters)
	25.670–26.100 MHz (11 meters)
Antenna:	20.0.0 20.000 111.12 (110.0.0)
	Built-In Ferrite
	Supplied Telescopic or Optional External
	Telescopic
	Nominal 400 mW @ 10 % THD
Calput	

Jacks:	
External Pov	ver DC IN 6V
Stereo Head	lphones
Power Sources	E 1
Back-Up	
Radio	(4) AA Batteries
	AC (Requires Optional Adapter; 6V/300 mA center tip negative)
	DC (Requires Optional Adapter; 6V/300 mA center tip negative)
Dimensions	
	(200 x 125 x 36 mm)
Weight	24.7 oz
	(700g including batteries)

Sensitivity: Image Rejection Ration: (for 20 dB Signal-to-Noise ratio): AM 150 kHz 34 dB AM 150 kHz $\mu V/m$ 1990 300 kHz 36 dB 300 kHz 700 μV/m 600 kHz dB 40 μV/m 600 kHz 400 1.4 MHz 40 dB $\mu V/m$ 14 MHz 400 3.1 MHz 40 dB 3.1 MHz μV 4 7.1 MHz dB 40 7.1 MHz μV 4 15.1 MHz 40 dB 15.1 MHz 4 μV 28.1 MHz 40 dB μV 28.1 MHz 4 FM 87.5 to 108 MHz 40 dB Selectivity: – 6dB AM -50dB Wide +3kHz +7kHz

Frequency Stability:

Narrow

1st

2nd

IF AM

FM

Within 1 kHz per hour after 60 minutes warm up.

 $\pm 2kHz$

450

10.7

55.845

±4kHz

MHz

kHz

MHz

(for 30 dB Signal-to-Noise ratio): FM 87.5 to 108 MHz $4\mu V$

RADIO SHACK LIMITED WARRANTY

This product is warranted against defects for 90 days from date of purchase from Radio Shack company-owned stores and authorized Radio Shack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your Radio Shack sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

EXCEPT AS PROVIDED HEREIN, RADIO SHACK MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

We Service What We Sell

RADIO SHACK
A Division of Tandy Corporation
Fort Worth, Texas 76102

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